

[0025] In a fourth variation, the second deformable layer 300 may function to provide a visual aesthetic, as shown in FIG. 10. The second deformable layer 300 may include a plurality of cavities 325 and may function to expand a pattern of cavities 325 to add a certain aesthetic detail to the device 10. The second deformable layer 300 may also function to pulsate the pattern of cavities 325 to add a pulsating aesthetic to the decoration and/or the logo of the company manufacturing the device 10. For example, the company logo of a laptop in standby mode may pulsate. The particular decoration to be exhibited may be selected by the user. Alternatively, a processor may detect the presence of the hand of a user (for example, with a proximity sensor such as an infrared sensor) and employ the decoration. However, any other suitable method to employ the second deformable layer 300 may be used. The decoration may be of any suitable decoration, for example, a shape, the profile of an animal, the user's name, or a message.

[0026] The second deformable layer 300 of the user interface 100 may be used to provide any other suitable tactile experience to the user. A light source may also be coupled to the user interface system 100 to augment the experience provided by the device. For example, in the first example of the second deformable layer 300 providing a tactile communication to the user, a set of light sources may be integrated to provide light in phase with the pulsation of the expansion and retraction of the second fluid vessel 327. Alternatively, the fluid 312 of the second deformable layer 300 may function to direct light through the second deformable layer 300 such that the effect of light aimed through the fluid vessel of the second deformable layer 300 may be affected by the arrangement of fluid within the fluid vessel. However, any other suitable experience may be provided to the user of the device 10, for example, a vibration motor may be coupled to the user interface system 100 to provide vibration along with the expansion/retraction of the second fluid vessel 327. The user interface system 100 of the preferred embodiments may alternatively be applied to any other suitable device, for example, the device may be a musical instrument where the deformed particular region 313 of the second deformable layer 300 functions to affect the passage of air or any other suitable type of fluid through the instrument to affect the musical qualities of the instrument. Alternatively, the deformed particular region 313 may come into contact with a string of a stringed instrument and affect the vibration of the string. However, any other suitable application of the user interface system 100 may be used.

The Method of the Preferred Embodiments

[0027] As shown in FIGS. 7-9, the method S100 of the preferred embodiments preferably includes providing a first deformable layer Step S200 that defines a first surface and a first fluid vessel that contains a first volume of fluid, providing a second deformable layer Step S300 that defines a second surface and a second fluid vessel that contains a second volume of fluid, selectively deforming at least one of the first and second surfaces Step S110, wherein selectively deforming at least one of the first and second surfaces includes at least one of: manipulating the first volume of fluid to deform a first particular region of the first surface into a tactilely distinguishable formation of a first type Step S210 and manipulating the second volume of fluid to deform a second particular region on the second surface into a tactilely distinguishable formation of a second type that substantially changes the

shape of the device Step S310. As described above, the step of manipulating the first volume of fluid preferably includes configuring the first type of tactilely distinguishable formation to receive a user input Step S120. However, the first type of tactilely distinguishable formation may function to provide any other suitable function to the device.

[0028] In a first variation of the step of manipulating the second volume of fluid, the second volume of fluid is manipulated to configure the second type of tactilely distinguishable formation to provide information to the user Step S320. In a first example, the information may include alerting the user regarding the operation of the device Step S322, for example, in the variation of the device 10 that receives messages, such as a mobile phone, the second volume of fluid may be manipulated to alert the user on a received message. In a second example of the first variation, the information may include indicating the location of a particular feature of the device Step S324, for example, the location of the speaker on a device 10 that is a mobile phone. However, the second type of tactilely distinguishable formation may provide any other suitable type of information.

[0029] In a second variation of the step of manipulating the second volume of fluid, the second volume of fluid is manipulated to configure the second type of tactilely distinguishable formation to provide protection for the device Step S330, as shown in FIGS. 7 and 8. In a first example, the second type of tactilely distinguishable formation is configured to provide a bumper for the device, as shown in FIG. 7. In this first example, the method S100 of the preferred embodiments preferably includes the step of detecting the acceleration of the device S111 and providing a bumper for the device when the acceleration of the device is detected to be above a threshold that may indicate that the device is falling Step S332. This variation may also include the step of predicting the face of the device closest to the potential impact Step S112 and providing a bumper for the face of the predicted face of impact Step S334. In a second example of the second variation, the second type of tactilely distinguishable formation is configured to provide "feet" or risers for the device, as shown in FIG. 8. In this example, the method S100 of the preferred embodiments preferably includes the step of detecting the proximity of a face of the device to an external surface Step S120 and providing a bumper for surface detected to be in substantial proximity to an external surface Step S336. However, any other suitable protection may be provided to the device by the second type of tactilely distinguishable formation.

[0030] In a third variation of the step of manipulating the second volume of fluid, the second volume of fluid is manipulated to configure the second type of tactilely distinguishable formation to change the orientation of the device Step S340, as shown in FIG. 9. In this variation, the method S100 of the preferred embodiments preferably includes the step of detecting the orientation of the device Step S130, for example, the angle of the device relative to the ground, a surface, or any other suitable reference. In the example as shown in FIG. 9, the second type of tactilely distinguishable formation of the third variation may be arranged similar to the "feet" of the second variation where a portion is located on one side of a face of the device and another portion is located on another side of a face of the device, preferably opposite of the first portion and both portions preferably are in contact with an external surface. The external surface may be an irregular surface, such as those seen on rocks, or may be a substantially